Appendix H

```
' ***** LCD PANEL *****
' PIC16F819

'* SET UP BASIC ENVIRONMENT
          DEFINE CHAR_PACING 1000

' PORTA.0 = CURRENT SENSE
' PORTA.1 = POT
' PORTA.2 = THERMISTOR
' PORTA.3 - VOLTAGE SENSE
' PORTA.4 =
' PORTA.5 =

' PORTB.0 =
' PORTB.1 =
' PORTB.2 = NPN
' PORTB.3 = FORMERLY NPN
' PORTB.4 = PNP
' PORTB.5 =
' PORTB.6 =
' PORTB.7 =

'*******************************************************
'*                                                     *
'*                   ENVIRONMENT                       *
'*                                                     *
'*******************************************************


          DEFINE CHAR_PACING 1000

'*******************************************************
'*                                                     *
'*                   VARIABLES                         *
'*                                                     *
'*******************************************************

N         VAR       BYTE
X         VAR       BYTE
Y         VAR       BYTE
Z         VAR       BYTE

X2        VAR       WORD
Y2        VAR       WORD
Z2        VAR       WORD

MISCF     VAR       BYTE

LCNT      VAR       BYTE
VOLTS     VAR       WORD
VOUT      VAR       WORD
CURRENT   VAR       WORD
AMP       VAR       WORD
XTEMP     VAR       WORD      BANK0

POTAVG    VAR       WORD
L20       VAR       WORD
PCNT      VAR       BYTE
PCNT1     VAR       BYTE
LCURRENT  VAR       WORD

BCNT      VAR       BYTE

VIDLE     VAR       WORD
VMAX      VAR       WORD

POTBUF    VAR       WORD(16) BANK1
ACNT      VAR       BYTE      BANK0
CCNT      VAR       BYTE

ALOOP     VAR       BYTE
```